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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,826	10/30/2001	John R. Geary	P00078USIA (P271)	1042

7590 07/23/2004

Chief Intellectual Property Counsel
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EXAMINER


VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/020,826	Applicant(s) GEARY ET AL.	
	Examiner Hai Vo	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7,21 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,21 and 23-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1771

1. The double patenting rejections and all of the art rejections have been overcome by the present amendment. However, upon further consideration, new grounds of rejections are made in view of Clayton et al (US 5,735,092), Jamison (US 5,439,735) and Mushovic (US 5,604,266).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 32, 33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Collins et al (US 5,846,461). Collins teaches a carpet pad comprising a layer 130 of polyurethane foam reinforced with scrap rubber from recycled tires and a polyethylene liner 94 (figure 7). Collins teaches that the bottom foam layer 130 is formed by reacting together by an organic isocyanate compound and polyol (column 3, lines 45-50). Likewise, the bottom foam layer inherently comprises polyisocyanurate. It is the examiner's position that Collins anticipates the claimed subject matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

Art Unit: 1771

said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5-7, 25-27, and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 5,735,092) in view of Mushovic (US 5,604,266). Clayton '092 teaches a composite roofing member including a foam core 11 selected from the group consisting of polyisocyanurate, polyurethane and mixtures thereof; a facer 13 applied to one surface of the foam core and made of a reinforced polymer material; and gypsum board 14 applied to the opposite surface of the foam core (figure 1). The gypsum board corresponds to either a second facer material or a substrate material as recited in the claims. Clayton '092 further discloses a weather protective layer being applied to the recovery board (column 6, lines 10-15). Clayton '092 discloses the polyurethane foam having an iso index above 120 (column 5, lines 5-10). Clayton '092 discloses the board having a thickness of 1.5 to 4 inches (column 4, line 65), within the claimed range. Clayton '092 is silent as to a foam core having been reinforced with a filler material. Mushovic teaches a rigid foam composite material for use in structural building materials comprising a polyurethane foam reinforced with ground rubber (claim 17) to provide the foam with low cost, effective reinforcement, excellent insulation properties and low friability (column 3, lines 17-20). This is important to the expectation of successfully practicing the invention of Clayton '092 and thus suggesting the modification. Mushovic discloses that the fillers are ground PVC (claim 15), polyurethane scrap (claim 16). Mushovic discloses the dispersed filler particles present in an amount of from 15 to 75

Art Unit: 1771

% by weight of the total resin material (column 8, lines 43-45), within the claimed range. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the ground rubber in the foam core of Clayton '092 motivated by the desire to provide the composite board with low cost, effective reinforcement, excellent insulation properties and low friability.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 5,735,092) in view of Mushovic (US 5,604,266), as applied to claim 5 above, further in view of Rosato et al (US 4,388,366). Neither Clayton '092 nor Mushovic specifically discloses the composite board comprising a foam core being sandwiched between the two facers. Rosato teaches an insulation board for use in roofing having a foam core sandwiched between the two facers to provide the foam core with improved dimensional stability (figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a facer to both sides of the foam core of Clayton '092 as modified by Mushovic motivated by the desire to provide the foam core with improved dimensional stability.
7. Claims 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 5,735,092) in view of Mushovic (US 5,604,266) as applied to claim 1 above, further in view of Jamison (US 5,439,735) and as evidenced by Pennings et al (US 4,200,579). Mushovic does not specifically disclose the ground rubber derived from recycled tires.

Art Unit: 1771

Jamison discloses the use of scrap rubber from recycled tires in the building construction materials from the practical view of desirable ecology and excellent sound and thermal insulation (column 3, lines 60-65, example 6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ground rubber formed from recycled tires from the practical view of desirable ecology and excellent sound and thermal insulation. Further, it is known in the art that scrap rubber from recycled tires comprising EPDM scrap material (Pennings et al, abstract).

8. Claims 1, 2, 5-7, 25-27, and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 6,044,604) in view of Mushovic (US 5,604,266). Clayton '604 teaches a composite roofing member including a foam core 11 selected from the group consisting of polyisocyanurate, polyurethane and mixtures thereof; a facer 13 applied to one surface of the foam core and made of a reinforced polymer material; and gypsum board 14 applied to the opposite surface of the foam core (figure 1). The gypsum board corresponds to either a second facer material or a substrate material as recited in the claims. Clayton '604 discloses the polyurethane foam having an iso index above 120 (column 5, lines 30-35). Clayton '604 discloses the board having a thickness of 1 to 4 inches (column 5, line 22), within the claimed range. Clayton '604 is silent as to a foam core having been reinforced with a filler material. Mushovic teaches a rigid foam composite material for use in structural building materials comprising a polyurethane foam reinforced with ground rubber (claim 17) to provide the foam with low cost, effective

Art Unit: 1771

reinforcement, excellent insulation properties and low friability (column 3, lines 17-20). This is important to the expectation of successfully practicing the invention of Clayton '604 and thus suggesting the modification. Mushovic discloses that the fillers are ground PVC (claim 15), polyurethane scrap (claim 16). Mushovic discloses the dispersed filler particles present in an amount of from 15 to 75 % by weight of the total resin material (column 8, lines 43-45), within the claimed range. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the ground rubber in the foam core of Clayton '604 motivated by the desire to provide the composite board with low cost, effective reinforcement, excellent insulation properties and low friability.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 6,044,604) in view of Mushovic (US 5,604,266), as applied to claim 5 above, further in view of Rosato et al (US 4,388,366). Neither Clayton '604 nor Mushovic specifically discloses the composite board comprising a foam core being sandwiched between the two facers. Rosato teaches an insulation board for use in roofing having a foam core sandwiched between the two facers to provide the foam core with improved dimensional stability (figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply a facer to both sides of the foam core of Clayton '604 as modified by Mushovic motivated by the desire to provide the foam core with improved dimensional stability.

Art Unit: 1771

10. Claims 23, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clayton et al (US 6,044,604) in view of Mushovic (US 5,604,266) as applied to claim 1 above, further in view of Jamison (US 5,439,735) and as evidenced by Pennings et al (US 4,200,579). Mushovic does not specifically disclose the ground rubber derived from recycled tires. Jamison discloses the use of scrap rubber from recycled tires in the building construction materials from the practical view of desirable ecology and excellent sound and thermal insulation (column 3, lines 60-65, example 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ground rubber formed from recycled tires from the practical view of desirable ecology and excellent sound and thermal insulation. Further, it is known in the art that scrap rubber from recycled tires comprising EPDM scrap material (Pennings et al, abstract).

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 1771

12. Claims 1, 2, 5-7, 25-27, and 29-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,735,092 in view of Mushovic (US 5,604,266).
See the obviousness rational in the paragraph no. 5.
13. Claim 21 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,735,092 in view of Mushovic (US 5,604,266) as applied to claim 5 above and further in view of Rosato et al (US 4,388,366). See the obviousness rational in the paragraph no. 6.
14. Claims 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,735,092 in view of Mushovic (US 5,604,266) as applied to claim 1 above and further in view of Jamison (US 5,439,735) and as evidenced by Pennings et al (US 4,200,579). See the obviousness rational in the paragraph no. 7.
15. Claims 1, 2, 5-7, 25-27, and 29-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,044,604 in view of Mushovic (US 5,604,266).
See the obviousness rational in the paragraph no. 8.
16. Claim 21 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,044,604 in view of Mushovic (US 5,604,266) as applied to claim 5 above

Art Unit: 1771

and further in view of Rosato et al (US 4,388,366). See the obviousness rational in the paragraph no. 9.

17. Claims 23, 24 and 28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,044,604 in view of Mushovic (US 5,604,266) as applied to claim 1 above and further in view of Jamison (US 5,439,735) and as evidenced by Pennings et al (US 4,200,579). See the obviousness rational in the paragraph no. 10.

Response to Arguments

18. The amendment that excludes the wood chips and fiberglass strands from the filler material within the foam core is sufficient to overcome the art rejections and double patenting rejections in the previous Office Action mailed on 03/26/2004. However, new grounds of rejections are made in view of Clayton et al (US 5,735,092), Jamison (US 5,439,735) and Mushovic (US 5,604,266).

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

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